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ABSTRACT

The document contains a comprehensive historical review of the field of driver education, now called driver and traffic safety education, which has been taught in the public schools for more than 30 years. The first of eight chapters traces the early history of safety education from colonial times through the 1940's, including the beginnings of driver education in the mid-1930's. Chapter 2 focuses on contributions to the growth and development of driver and traffic safety education up to 1965 when more than 13,000 schools were giving this type of instruction to over 1,700,000 students. Teacher preparation and certification are discussed in Chapter 3. Chapter 4 presents the local organization, administration, and supervision of driver education programs which led to the development of State-level policies. The remaining chapters deal with measuring student progress (through knowledge and skill tests, driver attitudes, psychophysical testing, and comparative studies), research, support organizations, and the future outlook (from a 1966 perspective). Appended are a list of high school textbooks, and founding dates of 44 State Driver and/or Safety Education Associations. A 152-item bibliography (with a notation that many of the references are out of print) concludes the document. (Author/MS)

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HISTORY OF DRIVER EDUCATION IN THE UNITED STATES

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FOREWORD

Driver education*—now called driver and traffic safety education—has been taught in the public schools for more than 30 years. Yet, thus far, no comprehensive historical review of the field has been published. The need for such material has been cited frequently by college professors and high school teachers of driver and traffic safety education, and representatives of many organizations.

Supported by Chrysler Corporation's Highway Safety Department, the NEA National Commission on Safety Education appointed a four-man committee of pioneers in the field to plan and to record a definitive review of the field. This committee was composed of Amos E. Neyhart, director emeritus of the Pennsylvania State University Institute of Public Safety, Forrest R. Noffsinger, recently retired from the Northwestern University Traffic Institute, Leslie R. Silvernale, professor of driver and safety education at the Michigan State University Highway Traffic Safety Center, and Herbert J. Stack, former director of the New York University Center for Safety Education. Dr. Stack also served as project writer.

It is hoped that this historical report will challenge those in the field today and tomorrow to extend and improve this vital program of education.

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* The terms 'driver education' and 'driver training' were used in older references. 'Driver education' referred to the classroom instruction; 'driver training,' to practice driving instruction or the laboratory phase of the program.

I EARLY HISTORY

. . . of Safety Education

While the organized safety education movement is of recent origin, history of safety is as old as man himself. Primitive man sought shelter to protect himself from environmental hazards. To protect his family against cold, heat, and other natural dangers, he lived in caves, crude huts, and shelters fashioned from hides. The history of the safety movement might be written as the story of mankind's effort to cope with life's perils. It is a story of desperate battles with relentless natural forces—notably fire, flood, famine, cold, and wild animals. Charles Darwin (34) in his studies of early life called this the struggle for existence—the survival of the fittest. Only those species survived which could adjust and find protection.

Primitive man protected and taught his offspring how to survive. Margaret Mead (56) in her anthropological studies of primitive youth, gave a number of illustrations of how the parents and older children in Samoa and Bali showed the younger children how to swim, fish, climb, and protect themselves. Studies of American Indian life demonstrated how the young were sheltered by members of the family and how they were taught to protect themselves. For primitive man, life was a struggle for existence.

Pioneer School Programs

It is almost impossible to pinpoint the origin of any particular area of the school curriculum. This is especially true of safety education. In this publication, therefore, dates will not be used unless there are authentic records.

Some safety instruction was given in schools even in Colonial America. Pilgrim families taught safety to their children, yet no records are available to show the exact nature of safety instruction in schools of the time. It is known that there were lessons as early as 1845, and that McGuffey's *Eclectic Readers* (55) included a number of references to safe practices. These lessons were integrated with other subjects such as reading and writing.

Records show that rules and regulations regarding fire drills were prepared in the Boston Public Schools in 1900. Most early school buildings were made of wood and were heated by wood-burning stoves. Undoubtedly, many years before this date, instruction was given in regard to fire safety.

In reference to specific schools that pioneered in safety instruction, the records are limited. However, a course of study published in 1906 for New York State included some materials on safety education as did the San Antonio course of study in 1913. A comprehensive pro- 7

gram was that organized in the Detroit schools four years later under the leadership of a safety education supervisor, Harriet E. Beard (106).

> . . . a fourfold program was developed:
> 1. A study and analysis of traffic accidents to school children
> 2. The construction of a course of study in safety education for the elementary schools
> 3. Instruction of a class of Detroit Teachers College students in the principles of safety education
> 4. Cooperation with all civic agencies concerned with public safety.

In the meantime, experiments were being conducted in the development of a safety education program by E. George Payne, at that time President of Harris Teachers College in St. Louis. Work was carried on at Wyman School in that city to demonstrate that safety could be taught effectively by correlation with practically every subject in the curriculum. Many teachers came to this demonstration school and returned home convinced that the plan was practical. In 1919, Payne's book, *Education in Accident Prevention* (116) was published and came to be widely used by school systems.

A Milestone

The 1919 convention of the National Education Association, held in Milwaukee, was addressed by Albert Whitney (140) on the topic, "Safety Education in the Public Schools." His address included the following statement:

> It cannot be given all of us to fight for freedom, but the fight for safety, the fight for the real adventure, the fight for a life that shall be the measure of a purpose instead of the marred result of purposeless chance, is within the rights of us all—it should be within the right of every pupil in the public schools.

This meeting, considered a milestone of safety education development, must have made a strong impression on the delegates because safety education grew rapidly during the following years. State laws requiring safety instruction were passed in Ohio, Alabama, Massachusetts, and Oregon during the early 1920's. The federal Bureau of Education also issued a bulletin, *Education in Accident Prevention.*

National Safety Council

Safety education was a discussion topic during an annual meeting of the National Safety Council in 1914. Five years later, the Education Section later known as the Education Division was organized under the leadership of E. George Payne. From 1922 to 1938, the Division
8 was given a financial support grant by the National Bureau of Casualty

and Surety Underwriters. The Education Division, during this period, was located in New York and was under the direction of Albert W. Whitney.

Whitney selected well-known leaders in education to advise the Division. Membership in the advisory group included Charles H. Judd, William McAndrew, A. B. Meredith, Harold Rugg, Zenos E. Scott, Payson Smith, Ellwood P. Cubberly, Stephen P. Dugan, Burton P. Fowler, and Thomas W. Gosling. These men, all school or college administrators, gave status to the Education Division and several contributed articles to National Safety Council publications. Idabelle Stevenson served as director of this division for 16 years and was succeeded by Marian Telford (1938-44), Forrest E. Long (1944-45), Kimball Wiles (1945-46, acting), Wayne P. Hughes (1946-66), and Kenneth F. Licht (1966-).

Field service activity was established by the Division and demonstration centers were set up in a number of eastern cities as well as in Kansas City. Initial work consisted largely of encouraging schools to consider safety education in overall planning for instruction and, later, of developing materials for school use. The Division was aided by the leadership of staff safety engineers and managers of local safety councils. Publications prepared between 1922 and 1928 included *An Introduction to Safety Education: A Manual for Teachers* (91), *Safety Education in the Public Schools* (101), and *Good Driving: A Manual for High Schools* (94).

The Division established the elementary school, secondary school, industrial and vocational, and teacher training sections. Later, sections for driver education, higher education, and safety supervisors were organized and the name was changed to School and College Division. The urgent need of a publication that would carry examples of effective teaching and good content brought the magazine *Safety Education* (100) into existence in 1926. This magazine was published until 1965 when the name was changed to *School Safety* (102) and the focus altered to elementary education.

Annual meetings sponsored by the National Safety Council provided opportunity for teachers and administrators to get together and discuss various problems. Over the years, the Council has had a strong influence in developing an accident reporting system, publishing abstracts of research studies, and in a number of other activities.

White House Conference

An early conference that was helpful in encouraging safety education was called by President Herbert Hoover in 1932. Known as the White House Conference on Child Health and Protection, it was attended chiefly by doctors, health educators, and representatives of welfare agencies. The Committee on Safety Education of this 1932 conference

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helped set goals for the schools and was successful in persuading the authors of the *Child's Bill of Rights* (148) to include three safety measures:

> 7 For every child a dwelling place safe, sanitary, and wholesome . . .
> 8 For every child a school which is safe from hazards . . .
> 12 For every child education for safety and protection against accidents to which modern conditions subject him—those to which he is directly exposed and those which, through loss or maiming of his parents, affect him indirectly.

An important contribution of the Committee's work was that of convincing doctors, educators, and representatives of welfare organizations of the importance of safety education. While great strides had been made previously in the reduction of childhood diseases, no such success had attended the child safety movement.

A Second Milestone

Another milestone came in 1926 when the National Society for the Study of Education published its 25th Yearbook, *The Present Status of Safety Education* (106.) This 366-page volume on various phases of safety education was prepared by the Society's Committee which included well-known educators and leaders in safety education: M. B. Hillegas, C. H. Judd, A. B. Meredith, Z. E. Scott, A. W. Whitney, S. J. Williams, and G. M. Whipple. It included subject matter in safety education, methods of administration, types of lessons for academic and vocational high schools, and a chapter on teacher preparation institutions. It is interesting to note that the bibliography included well over 100 books, pamphlets, and courses of study. Even in 1926 there was a variety of materials for teachers covering many phases of safety education.

A. B. Meredith, then commissioner of education in Connecticut, and Albert W. Whitney collaborated in writing a chapter on "The Fundamental Significance of Safety Education" which included such interpretations of their philosophy as the following:

> The part that safety and the other subjects of which it is a type will take in this re-organization seems fairly clear. Health, safety, thrift, and conservation are all characterized by having an immediate relationship to life. They involve fundamental attitudes of mind that it is necessary for one to have if he is satisfactorily to look out for himself and take his place in society. . . . Our schools can do nothing better nor more fundamental than to make our children honorable, truthful, brave, courteous, unselfish, self-reliant, able to recognize the finer values in life, and disposed to conserve, rather than waste, their health, their lives, and the resources of nature; there are no more fundamental nor important objectives than these. . . .

E. George Payne, in surveying 250 teacher preparation institutions, found that the University of Colorado and New York University had courses in accident prevention while George Peabody College and the Normal Schools at La Crosse and Platteville (Wisconsin) and Oswego (New York) incorporated safety education in other courses. The first course in general safety education was offered at Teachers College, Columbia University, in 1929.

The Yearbook gave detailed accounts of methods of administering safety education in six cities. Teachers in the Springfield (Massachusetts) public schools contributed a complete course of study for all grades of the elementary schools. It explained methods of integrating safety education in junior and senior high schools and included a detailed curriculum of instruction in accident prevention for various shops in vocational schools. Prepared by teachers and administrators, this publication was the first to cover multiple phases of safety education. It was widely used by the schools.

Co-Curricular Activities

The following were among the pioneer cities in the organization of school safety patrols: Newark, Roselle Park and Paterson (New Jersey); Woonsocket (Rhode Island); Chicago; Philadelphia; Washington, D. C.; Warren and Canton (Ohio); and Seattle. The school safety patrol plan developed rapidly, often being sponsored by local automobile clubs, safety councils, and city or state police. In 1930, standard rules for patrol operation were formulated by representatives of the American Automobile Association, National Congress of Parents and Teachers, and the National Safety Council (92). These rules were based on experience and careful observation in 1200 cities. The guidelines emphasized that the function of patrols is to "instruct, direct, and control members of the student body in crossing the streets," and specified that "patrols should not be charged with the responsibility of directing vehicular traffic, nor be allowed to do so other than signaling a motorist who approaches the crossing after the student pedestrians have left the curb." They stated further that patrols must not be termed "police" nor be organized as such. During the 1964-1965 school year 850,000 boys and girls served on school safety patrols.

According to records of the National Safety Council, a junior safety council was organized in Rochester (New York) in 1918. Councils were then started in Baltimore, Kansas City, and Philadelphia. Student safety organizations became popular in elementary and junior high schools. The typical organization is composed of representatives chosen from various homerooms. The student body is kept informed of safety work through representatives.

Assembly programs, including dramatizations, talks by outside speakers, and motion pictures and other visual aids, were common in

the schools during the 1930's.* According to *Safety Education thru Schools* (126), the November 1938 Research Bulletin of the National Education Association: "There is a growing list of film lessons, many of them with sound track. These are becoming better adapted to their purpose and to pupil audiences." Assembly programs on fire prevention, traffic safety, first aid, and water safety were most common.

Based on a belief that the "will to safety" was as important as knowledge of safety procedures, campaign methods were also used. The seasonal character of accidents suggested such a procedure—traffic safety and fire prevention in the fall, home hazards in the winter, playground and water safety in the spring. A wide variety of posters and lesson plans on various subjects were made available by non-school agencies.

Philosophy

A search through the books of such philosophers as Herbert Spencer, William James, and John Dewey reveals a number of ideas that had to do with safety and security. Going further back in history, Schopenhauer and Hegel also mentioned the importance of security. Plato in the *Republic* included a number of statements related to safety and protection.

Albert W. Whitney has been called the original philosopher of safety education. He recognized that, before a subject could have status in the schools, a philosophy should be developed. He began to assemble material on philosophy in 1920. A series of articles based on this material was published several years later by the National Safety Council.* Whitney adapted basic concepts expressed by Spencer, Dewey and other philosophers and combined them with his original ideas. Thus an acceptable philosophy of safety education emerged which included the following precepts:

Safety grows well and adapts to the needs of a changing world.

It is a way of life that applies to anything we do at all times—work, play, driving, and community and family activities.

More and better adventures are by-products of safety.

It is not self-centered; it is oriented toward protecting others as well.

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* As early as 1931, six high schools organized club activities in driving, several of which were called Traffic Clubs. In the following year, the National Safety Council developed a manual, *A Program for Organizing a High School Traffic Club* (89); and in 1935, Thomas A. Allen prepared a workbook, *Safety on the Highways* (3).

* Whitney's philosophy will be found also in the first chapter of the 18th Yearbook, *Safety Education* (8), and in various college textbooks in general safety.

Safety doesn't say "don't do it", it says "do it safely."

Problems must be faced up to resolutely and skillfully.

Safety is freedom saved for doing worthwhile things in life.

Early Research

Several doctoral studies on various safety education topics were conducted in the 1920's. Streitz (144) completed a study in 1926 of *Safety Education in the Elementary Schools*. This was followed in 1928 by Henig's (41) research on *Safety Education in the Vocational School*, and Vaughn's (147) psychological study of *Positive Versus Negative Instruction*. Stack's (142) research, *Safety Education in the Secondary Schools*, which included a course of study for the secondary schools and materials on automobile accident prevention, was completed in 1929. Sanders' (133) work in the area of *Safety and Health in Organized Camps* was started during the same year and was completed in 1931. Lloyd's study, *Safety in Physical Education in Secondary Schools*, was completed in 1933 (49).

These studies were made possible by fellowship grants by the National Bureau of Casualty and Surety Underwriters. The Bureau also published and gave wide distribution to the results.

In the period before 1940, other doctoral studies included Noble's (110) research on pupil transportation; Eastwood's (36) investigation of safety in college physical education; MacMillan's (51) survey of safety education in the public schools of the nation; Cressman's (32) study of safety education in the school shops of Pennsylvania; and Van Cott's 1938 study of the integration of driver education into other school subjects (146).

National Education Association

In 1936 the NEA Research Division, under the direction of William G. Carr and Frank W. Hubbard, conducted a study and issued a report on *Safety in Pupil Transportation* (127) which listed possible causes of pupil injury in school bus operations and indicated safe operating practices and basic standards for bus equipment.

In 1937 the NEA Research Division organized a Safety Education Projects Unit and undertook a series of studies made possible by funds provided by the Highway Education Board (not now in existence). The complete series of publications provided a comprehensive analysis of the problems of safety and safety education, a review of the literature, methods of instruction, and detailed lessons for various elementary school grades. A brief statement about each of these follows:

To gather information for *Safety Education thru Schools* (126), published in 1938, questionnaires were sent to a sampling of 100,000

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members of the National Education Association and replies were received from over 14,000 teachers in elementary, junior high, and senior high schools. It was found that 82 percent of the teachers from elementary schools, 41 percent from junior high schools, and 20 percent from senior high schools were teaching some safety education. It was clear that the major responsibility for the program was borne by classroom teachers and principals. There was very little supervision from school departments.

Teachers were asked to indicate the methods of teaching they considered most valuable. While responses and opinions varied, the following were most frequently mentioned: (a) safety discussions on the use of equipment in various courses, (b) motion pictures on safety, (c) lectures by non-school people, (d) classroom forums and general discussions of safety problems, (e) school safety patrols, and (f) bulletin board displays.

The report revealed that 23 state departments of education had courses of study in general safety and 24 in highway and traffic safety. While most were short mimeographed bulletins, they gave evidence that, as early as 1938, many states were showing interest in both general safety and traffic safety education.

Safety and Safety Education: An unnotated Bibliography (125) appeared in 1939 and consisted of two main parts: a) books, pamphlets, and bulletins, and b) magazine articles appearing in periodicals during the years 1936 38 inclusive. It covered nearly all phases of safety—highway safety, driver instruction, and safety on farms, in homes, and in recreation. In addition, a list of over 200 booklets was included together with pamphlets for free distribution. This was followed by plays, safety magazines, textbooks, readers, research studies, tests, workbooks, and magazine articles. The complete list of annotated materials included over 1400 items, several hundred of which were related to traffic safety.

A Checklist of Safety and Safety Education (123) appeared in 1939 and included 214 items covering general administration of safety education; the conditions of structures, grounds, and equipment; school routine and maintenance; fire prevention and fire fighting; safety of personnel; street safety and bus transportation; special activity areas; and finally, supervision, instruction, and community relations.

Problems and Topics in Safety Instruction (124) was issued in 1940. One of its purposes was to record practices being followed in courses of study so that teachers who were starting or improving their present practices could have some guidance in meeting local needs. The bulletin was based on an analysis of more than 250 state and local school system courses that treated all aspects of safety except driver education. It was found that in 93 cities and towns courses in safety education were taught as a separate subject, and in 14 others safety

instruction was combined with health and physical education. In addition, 38 courses were presented by non-school agencies.

A bulletin, *Visual Aids in Safety Education* (130), listed films, filmstrips, and lantern slides that were available as of December 1939. The list included 156 titles of films covering various safety subjects and over 100 sound-slide films and lantern slides.

The NEA Research Division next published a series of three bulletins called *Units in Safety Education* (129). The activities and procedures in each bulletin were adapted from courses of study in various school systems. Designed to put useful materials directly into the hands of teachers, the subjects included highway safety; safe practices in the home, in recreation, in swimming; and safe use of firearms. Fire prevention and safety in transportation were also included.

Teacher Liability for Pupil Injuries (128), published in 1940, had the purpose of informing teachers and administrators about problems of liability, contributory negligence, and corporal punishment. Liability of school boards and problems of insurance were also discussed.

Driver Education

Up to 1920 when instruction in traffic safety was first provided by schools, it was integrated with other subjects and taught in either or both the elementary and secondary schools. Records show that a separate course in driver education was given in Gilbert (Minnesota) in 1923 (93). Auto mechanics teachers may have given instruction at an earlier date but official records have not been located.

The year 1933 saw several developments. Driver education, including road instruction, was offered at State College High School in Pennsylvania by Amos Neyhart. While one student was at the wheel, three rode as observers. In the following year, Neyhart reported on this program at the National Safety Congress in Chicago. Clearwater High School in Delaware reported a course in 1934. Two years later, a college-credit course for teachers was offered at The Pennsylvania State College. In addition, an intensive one-week, 40-hour course for high school teachers, the first of many sponsored by the American Automobile Association, was given at Bluefield, West Virginia, and courses for regular high school students were offered in some Michigan schools. It was during this year that Lane Technical High School in Chicago started its program, using 30 "dummy" cars in the classroom to simulate driving. Adjoining the school was a small area in which several automobiles were available for practice. This program represented one of the first combinations of simulation and an off-street multiple-car range program.

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In the meantime, a course in classroom instruction had been taught in Bergen County, New Jersey, since 1933. This was a short 10-hour course taught in three schools the first year and, within a few years, taught in 19 schools. In the second year, a car and an instructor were used for a limited course in six schools.

It was during this period that many state courses of study in driver education was prepared. Among the first was that in New Jersey in 1933, followed shortly by publications in New Hampshire, Pennsylvania, Ohio, Delaware, and many other states. By 1940 there were well over 20 state courses of study and several hundred high schools had begun teaching driver education.

Several high school textbooks were published during the mid-1930's, including *Man and the Motor Car* by the National Conservation Bureau (later known as the Accident Prevention Department, Association of Casualty and Surety Companies) and the *Sportsmanlike Driving Series* by the American Automobile Association.* Since but little research was available, the authors depended largely on experience, opinions, and "best guesses" to determine course content. Although limited in scope, these first textbooks served useful purposes. In addition to forming a structure around which could be built research-based and experience-proved content, accompanying teacher's manuals often served as guides in the preparation of state and city courses of study.

There were several important developments in 1937. A college professors seminar in driver education was offered at the University of Kentucky. The Automotive Safety Foundation was established under the leadership of Paul G. Hoffman. A system-wide program in driver education was started in Cleveland public schools, supervised by Leslie R. Silvernale. Also in 1937, the American Association of School Administrators initiated plans for a yearbook on safety education.

Other publications worthy of mention were made available between 1930 and 1936. These included: *Safety Activities and Programs for Senior High Schools* (99), *Good Driving: A Manual for High Schools* (94), *Good Driving* (88), and *The Junior Safety Council* (105).

In 1938, the Center for Safety Education was established at New York University, and the Institute of Public Safety was set up at Pennsylvania State College. The Center offered four credit courses in the first year, one of them being "Driver Education in Secondary Schools." In addition, the Fordson High School in Dearborn (Michigan) offered a driver education course which combined classroom and practice driving instruction and the use of a motorless chassis (simulator) for teaching purposes. This differed from the Lane Technical School plan which included both an off-street driving area and a kind of simulator.

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16 * Names of textbooks are listed in appendix.

II GROWTH AND DEVELOPMENT

. . . of Driver and Traffic Safety Education

In 1937, few schools were teaching driver education and most of these were offering courses consisting of classroom instruction only. In 1938, due to earlier efforts of C. E. Minnick of Salisbury, Maryland, and others, 18 schools in three eastern shore counties of Maryland enrolled over 1,000 students in complete driver education courses. By 1940, several hundred schools were offering driver education; in 1947, over 3,000 schools offered the program and nearly 200,000 students were given some type of instruction. The number increased rapidly until, during the school year ending in 1965, more than 13,000 schools were giving instruction to over 1,700,000 students. Only a small percentage of schools were offering the comprehensive program in 1940. In 1965, however, 68 percent were offering a minimum "30 and 6" course—at least 30 hours of classroom instruction and 6 hours of actual driving (or laboratory) instruction per student. Many of these schools were offering the course on a full-semester basis as recommended by the 1963 National Conference on Driver Education.

Approval by School Administrators

It is generally accepted that one of the most valuable contributions to the safety education movement came in the 1940 Yearbook, *Safety Education*, issued by the American Association of School Administrators (2). While driver education had made satisfactory progress since 1936, recognition and endorsement by school administrators was sorely needed. The Yearbook Commission had been appointed in 1937, and included leading school superintendents: Homer W. Anderson, John E. Bryan, Horace M. Ivy, Charles H. Lake, James M. Spinning, and Henry H. Hill (chairman). In addition, William H. Bristow, Amos E. Neyhart, and Albert W. Whitney, leading exponents of safety education, served on this Commission.

During the 1937 convention of the American Association of School Administrators held at New Orleans, there were three sectional meetings devoted to safety. One of the functions of these sessions was to prepare for the work of the Yearbook Commission. The Yearbook, presented three years later at the 1940 convention, was very well received and was then given wide distribution. It was the first time that safety education, including driver education, was recognized by the profession as an integral part of the school program. Some school administrators who were "on the fence" regarding driver education were won over and began to support the movement.

While the Yearbook covered all phases of safety education, driver education was given special attention. Materials in the various

chapters were widely quoted and used in preparing safety programs. In fact, it was used by many colleges as a textbook in general safety courses.

Among several statements of historical significance that appeared in the Yearbook, the following were concerned with driver education:

> Teaching youth to be safe and intelligent operators of motor vehicles is a responsibility of the community.
>
> Instruction in safety is an essential part of the modern school's program of producing good citizens.
>
> The time has come for educators to prepare themselves for leadership in safety education.

Pre-Induction Driver Education

The Office of the Quartermaster General of the United States Army recognized the potential values of driver education in the schools and colleges. During World War II the Army became so mechanized that even infantry divisions moved on wheels. It was felt that every enlisted man should be able to drive. The Quartermaster General's Office arranged for conferences and demonstrations for leaders in driver education. As a result, *Pre-Induction Driver Education in Schools and Colleges* (114) was prepared and distributed to the schools. It dealt primarily with classroom instruction, on the assumption that the Army would teach recruits to drive the special types of vehicles used in Army transportation. This program not only aided the armed forces, but helped keep high school driver education alive during the war years.

Non-School Agencies

In the Yearbook, *Safety Education* (8), there appeared a statement: "Most of the effective leadership to date has been supplied by employees of non-school agencies." This was undoubtedly true up to 1940 and immediately thereafter. Non-school agencies such as the American Automobile Association, the Association of Casualty and Surety Companies, the National Safety Council, and others exerted leadership in many states by designating members of their staffs as educational consultants. Their work included teacher preparation and the development of courses of study and textbooks, motion pictures, and other worthwhile materials.

In addition, in many states, motor vehicle departments, highway patrols, and other governmental agencies recognized the possibilities of driver education and were active in promoting programs—arranging for conferences, assigning staff members to traffic safety education, and in some cases financing the publication of courses of study. However,

as education departments accepted responsibility, non-school groups began to act in an advisory capacity, providing services upon request.

NEA National Commission on Safety Education

The organization of the National Commission on Safety Education was a natural development. For many years, the National Education Association had been interested in safety education—publications by the NEA Research Division in this field date back to 1936. The Yearbook, *Safety Education* (8), had demonstrated the interest of school administrators. The National Commission on Safety Education was organized in 1943 as a service unit of the National Education Association and comprised 12 (later 15) members appointed by the NEA Executive Committee. Over the years, a large share of the Commission's financial support has come from the Automotive Safety Foundation. In recent years financial support has come from American Oil Company, Chrysler Corporation, The Firestone Tire and Rubber Company, Ford Company Fund, and Insurance Institute for Highway Safety. The Commission has worked with, through, and for departments of the NEA, and many of its publications have been prepared in cooperation with one or more departments.

Since its organization, the Commission has made important contributions to the safety movement. Its purposes have been accomplished through conferences, publications, and consultant services, by working with associated groups such as the American Driver and Traffic Safety Education Association and various state associations, and through the conduct of activities such as the National Student Traffic Safety Program.

One part of its work has taken the form of planning and conducting conferences. The four National Conferences on Driver Education, and the 1965 Conference on Teacher Preparation and Certification are good examples.

Other contributions have been made through publications, many of which are mentioned in other sections of this report. Many of the Commission's worthwhile contributions have been accomplished by working in conjunction with various national and state organizations. These have included the Council of Chief State School Officers, the U. S. Office of Education, the National School Boards Association, the National Congress of Parents and Teachers, and many non-school groups.

As previously mentioned, the interest of the NEA Research Division in safety education dates back to 1936. Later (at the request of the Commission) the NEA Research Division conducted studies and published reports to provide background information on driver education for use by participants in the 1949 and 1953 national conferences on driver education. While these reports were prepared for use by con-

ference participants, one report covered *The Status of Driver Education in Private and Parochial Schools* (122). Subsequently the NEA Research Division collaborated with the Commission in conducting three projects: a questionnaire survey entitled *What Can You Do?: Research Needs in Traffic Safety Education* (87), *A Critical Analysis of Driver Education Research* (84), and *Tips and Cues: How Experienced Teachers Develop Good Traffic Citizens* (86).

A most comprehensive and detailed nationwide study of driver education was conducted by Norman Key and was reported in a preliminary way to participants in the 1958 national conference on driver education. This study was published by the Commission in 1960 under the title: *Status of Driver Education in the United States* (44).

Prior to each national conference on driver education and in cooperation with the American Association of Motor Vehicle Administrators, the Commission prepared for use by conference participants a report summarizing state motor vehicle regulations and practices pertaining to driver education and driver licensing.

National Student Traffic Safety Program

The National Student Traffic Safety Program, organized by the Commission in 1958, was designed to encourage and assist youth to undertake and develop safety projects. Each cooperating school receives a variety of useful materials including the program handbook, *Seven Steps to Traffic Safety* (72). In addition, regularly published Commission materials serve the entire membership. The organization comprised of student groups in participating schools, known as the National Student Safety Association, promotes traffic safety as well as safety in other fields.

The Commission engages in a number of other activities. It administers a program of scholarships, made possible by grants from support organizations, to assist teachers in taking advanced credit courses in driver and traffic safety education. The Commission staff serves as secretariat for the American Driver and Traffic Safety Education Association, a department of the National Education Association.

State Associations

Several state associations for driver education teachers were formed prior to 1949. The first national meeting of members of these was held in 1957 in Philadelphia. Subsequently the number of state associations grew rapidly and by 1960 there were organizations in 35 states. By 1965, the number increased to 42. These associations have held annual statewide meetings and, in several states, these have been

supplemented by district meetings. Many have provided newsletter service to members. Several have been active in the improvement of teacher certification, and in securing special financial support legislation for driver and traffic safety education. Annual conferences of state associations have been helpful in improving policies and standards for driver education. (See appendix for founding dates of state driver and/or safety education associations.)

Departmental Status for ADTSEA

Between 1957 and 1960, the membership of the American Driver and Safety Education Association expressed a strong opinion that departmental status should be sought in the National Education Association. At the Los Angeles Convention held in 1960, departmental status was approved under the name of the American Driver and Traffic Safety Education Association. Annual conventions of the Association are held in various sections of the country with programs composed of addresses, panel discussions, and research reports. Its status as a department of the National Education Association has given greater strength to the driver education movement.

A Guidebook

Recognizing a need for a publication addressed to teachers and administrators that would include specific suggestions for organizing a complete course of classroom and laboratory instruction, the National Commission on Safety Education in 1947 prepared a guidebook, *Let's Teach Driving* (63). While this booklet was not a course of study or a syllabus, it outlined procedures for organizing instruction and emphasized the community approach. Methods for securing cars were suggested. Among these were such plans as using school buses, renting vehicles from teachers, obtaining loaned vehicles from public agencies, purchasing cars with funds raised by students and asking parents to give road instruction. These methods were not found to be adequate. Suggestions also included purchase by the school district, and loan or rental from dealers, methods that are in general use today. Programs for scheduling, record keeping, and selection of students were discussed. This was followed by a brief description of typical driver education programs.

Other Publications

Other publications have been issued by the Commission that related to driver education. For several years, it issued *The Bridge* (60) which included abstracts of research studies and published a monthly newsletter, *Action for Safety* (59). The American Driver Education Associa-

tion (later, American Driver and Traffic Safety Education Association), through the facilities of the Commission, issued a quarterly *ADEA News and Views* (19). In 1965, the first issue of a magazine appeared entitled *SAFETY: Journal of Administration, Instruction, Protection* (71). Basically a consolidation of the earlier publications, the magazine has included valuable articles, discussions, and reports on developmental and established programs.

National Conferences

The First National Conference on High School Driver Education, held at Jackson's Mill (West Virginia) in 1949, made an outstanding contribution to driver education. Administered by the National Commission on Safety Education, the conference was co-sponsored by several departments of the National Education Association. The following were represented: National Council of Chief State School Officers; American Association of Colleges for Teacher Education; American Association for Health, Physical Education, and Recreation; American Association of School Administrators; National Association of Secondary-School Principals. This conference came at a time when the driver education movement needed policies, standards, and objectives. Conference proceedings were published as *High-School Driver Education: Policies and Recommendations* (1950) (62).*

The Conference agreed on certain definitions, terminology, and objectives of driver education. The report listed topical guides of learning experiences and made suggestions as to methods for teaching. Patterns for financing courses, and types of programs were discussed in the report. The minimum time recommended for courses was established as 30 hours of classroom instruction and 6 of actual driving instruction, exclusive of observation time. Policies regarding procurement and use of automobiles were agreed upon in detail. Sections were devoted to the selection of students, public relations, teacher qualifications, and certification.

The Conference report closed with a discussion of evaluation and research and provided sample agreement forms for obtaining automobiles. The first of four national conferences, it set the stage for those that followed and helped bring some uniformity to the movement.

The second national conference, held at Michigan State College in 1953, was sponsored by multiple departments of the National Education Association. The proceedings, *Policies and Practices for Driver Education* (1954) (66), re-emphasized and strengthened some of the

* In general, the proceedings were published the year after the conference was held.

points covered by the first conference, and added several others. It is of interest to note that no change was made in the objectives:

1. promoting the safe, efficient, and enjoyable use of equipment and environment
2. developing a strong sense of personal and social responsibility for the common welfare
3. developing pride in maintaining high standards of performance
4. promoting effective habits of cooperation in meeting and solving common problems
5. preparing people for useful vocations suited to their individual abilities

New materials were included in the sections on instructional planning and on teacher qualifications, preparation, and certification. Suggestions for elective courses for minors in driver education were made, including content materials for an advanced course. The question of short courses was discussed and a statement prepared that "in no case should the course be condensed to less than one week per semester hour of credit." Since there was a trend among colleges to offer credit courses, and since few institutions included one-point courses, this helped to eliminate the former one-week courses for prospective driver education teachers.

The proceedings came out strongly for adult and out-of-school youth instruction which up to this time had been given but little attention. A definitive statement was made regarding the use of student assistants and a new section on community relations was outlined. There was a discussion of private or commercial driving schools. A list of current research needs was also included.

The third national conference, held at Purdue University in 1958 and sponsored by 13 departments of the National Education Association, was attended by invited state and city supervisors, high school and college teachers, school administrators, and representatives of support organizations. The publication of proceedings appeared as *Policies and Practices for Driver Education* (1960)* (67). The conference reaffirmed the purposes and objectives of driver education and agreed upon general and special qualifications of teachers. For certification purposes, it was recommended that the minimum preparation of a teacher should include the completion of a teaching minor or its equivalent in driver and traffic safety education with nine semester hours required in driver education courses and the remainder in electives. Emphasis was placed on the role of state departments of education and on the qualifications of supervisors. An abstract of Key's

* Because of the similarity in the titles of the four publications, the date of publication of each follows the title.

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dissertation (67) was included which, among other recommendations, pointed to the need for better preparation of supervisors and college teachers.

The fourth national conference, co-sponsored by 15 departments of the National Education Association, was held in 1963 in Washington, D.C. The proceedings were published as *Policies and Practices for Driver and Traffic Safety Education* (1964) (68). The Conference chairman stressed that driver and traffic safety education was interdisciplinary. Being problem-centered, it was concerned with helping students to utilize the higher levels of learning such as problem-solving as well as independent and abstract thinking. Strong emphasis was placed on how to plan instruction and how to select the teaching methods. Innovations such as team teaching, programmed material, large group instruction, television, simulation, and off-street multiple-car driving ranges were included. The fourth conference changed the course title from "driver education" to "driver and traffic safety education."

An important part of the conference dealt with improving teacher preparation and certification, and standards.* Organization and administration practices were also considered. It was recommended that the standard course for high school students extend over a full semester (90 hours). The role of state departments of education, and the improvement of supervision were given special attention. The conference report closed with recommendations for improving research, including a list of possible studies, and a final suggestion on research coordination and the publication of findings.

Colleges and Universities

In 1946, the American Association of Teachers Colleges and the Commission jointly published *Safety Education for Teachers: Part 1, A Guide for Administrators of Teachers Colleges and Schools of Education* (17), and a year later *Part 2, A Guide for College Instructors of Safety Education* (18). A portion of each was devoted to driver and traffic safety education. Part 1 urged college administrators to develop a curriculum in safety education which included a course in driver education. It also emphasized the point that "many instructors . . . have themselves been inadequately prepared to assume this new responsibility." Part 2 included units in safety education among which was one on driver education.

In 1951, following a conference held in Cincinnati, *Safety Education by Colleges and Universities* (70) was published. The report covered safety in various departments of the college program, with driver education listed among the teacher education courses.

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* Details regarding standards are included in a later section under "Teacher Preparation and Certification."

A joint survey of college-level *Courses in Highway Safety and Highway Traffic* (145) was conducted in 1958 by the U.S. Office of Education and the National Commission on Safety Education. The survey report listed 404 courses in driver education, in addition to those which dealt with other phases of traffic accident prevention programs. There were only four states that did not have at least one driver education teacher preparation course.

Highway Safety Conferences

Over the years, a series of National Conferences on Street and Highway Safety have placed some emphasis on the importance of driver education. The 1924 conference called by Secretary of Commerce Herbert Hoover did not include driver education. The 1934 conference mentioned the subject in *Guides to Traffic Safety* (80) by discussing high school "motor traffic clubs" and "drivers' schools." In 1946, the name was changed to the President's Highway Safety Conference and a driver education program was urged in the committee report on *Education* (121). The Conference name was again changed in 1954 when President Eisenhower called the White House Conference on Highway Safety. The *Action Program for Highway Safety** (117) was further refined with a special report on *Education* (118) in which many of the recommendations were in accordance with those in *Policies and Practices for Driver Education*, 1960 (67). In a number of instances, the national conferences have been followed by state meetings which have helped strengthen public support for driver education. Under President Kennedy and President Johnson, the *Action Program for Highway Safety* (117) was administered by the President's Committee for Traffic Safety, on which served representatives from industrial, business, and other organizations.

* Inaugurated in 1946 and now including 11 sections of which one deals with *Education*.

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III TEACHER PREPARATION

. . . and Certification

The preparation of teachers of driver and traffic safety education has always been a serious problem. Before 1935, there were few courses in general safety and none in driver education.* Beginning in 1936, several factors influenced teacher education in this field.

During that year, Amos Neyhart taught a course for teachers at the Pennsylvania State College. Iowa State College also had courses for driver education teachers. In 1936, Neyhart taught another course for teachers at Bluefield, West Virginia; in 1937 Forrest R. Noffsinger and Neyhart offered a seminar for college instructors at the University of Kentucky. In 1938, the Center for Safety Education at New York University also conducted a seminar.

In the meantime, a "Skills of the Road" course in automobile driving was being offered in 1933 in two Bergen County (New Jersey) high schools. School administrators throughout the county were urged to introduce this course, but few teachers were prepared for the job. The course consisted of 10 hours of classroom instruction, the outline having been prepared by the Bergen County Y.M.C.A. and the staff of the National Bureau of Casualty and Surety Underwriters (25). Instructors in the other schools in the county were given some preparation through conferences, observation, and the use of a course of study. In some cases, teachers acted as coordinators—with motor vehicle examiners, insurance underwriters, and traffic court magistrates serving as discussion leaders. Within a few years, 19 schools in Bergen County were offering the course.

Van Cott (146), in 1933, proposed a program of teaching safety education for the high schools of New York State, suggesting that driver education units be included within a number of existing subjects. It was found, however, that spreading the course content over four or five subjects was not satisfactory. Driver education had progressed to the point where well-qualified teachers were considered essential.

Beginning in the mid-1930's, officials of the American Automobile Association and of the Association of Casualty and Surety Companies recognized the importance of high school driver education and the need for the preparation of teachers by adding educational consultants to their field staffs. Amos E. Neyhart, Forrest R. Noffsinger, Norman Key, Harold O. Carlton and others served the American Automobile Association. The Association of Casualty and Surety Companies organized the National Conservation Bureau and designated certain members of its staff to work with the Center for Safety Education at New York University, among them Kenneth Beadle, H. R. Danford, Milton D. Kramer, Thomas A. Seals, and Marland K. Strasser.

It is generally agreed that, for many years, the work of these men provided very important stimulation to teacher training* in driver education. They visited nearly every state—conducting courses and holding institutes and conferences for teachers, college professors, and school administrators. The programs were arranged either with state departments of education or with colleges and universities. In many states, one-week (40-hour) courses were taught by these educational consultants at colleges and universities. Although of short duration, most of the courses included classroom and practice driving instruction. These intensive courses met both during the day and evening.

Improving Teacher Preparation

Until 1940, few states had special course requirements for certification, and the colleges were slow in introducing credit courses. However, according to Schneider (134), in 1939, courses in driver education for teachers were reported in 59 colleges.

In the period following World War II, there was a definite improvement in standards for teacher preparation. This was due in part to *Safety Education*, the 18th Yearbook of the American Association of School Administrators (8). In addition, *High-School Driver Education: Policies and Recommendations* (62) urged schools to improve standards for teacher preparation, and in 1949, the President's Highway Safety Conference also recommended the expansion of driver education, including college-credit courses.

The first credit courses introduced were a two- or three-semester-hour credit course in driver education and a two- or three-semester-hour course in general safety education. By 1953, according to *Safety Courses for Teachers*,* over 250 colleges were offering some 600 courses in safety education and driver education. In addition, the second National Conference on Driver Education, held in 1953, urged teacher education institutions to explore the possibilities of offering a minor in safety education. By the period 1956-58, according to *Courses in Highway Safety and Highway Traffic* (145), more than 400 teacher preparation courses in driver and traffic safety education were offered by 256 institutions.

Certification

Key's (44) study reported that as of 1958-59 nearly three-quarters of the states required only two or three semester hours of college credit in

* Although the term 'teacher training' was used in earlier publications, the terms 'teacher education' and 'teacher preparation' are more common today.

28 * Issued annually by the National Safety Council during the mid-1950's

the specialty area for teachers of driver education. Thirty-three states reported no requirements in general safety education for driver education teachers, and 36 states did not require any additional courses in specifically related areas. Thus, the total hours required by states for certification of driver education teachers ranged from "no special requirement" in four states to "fifteen semester hours" in three states.

Hartman's (39) study in 1961 showed that of 42 states having certification requirements, 26 included a "grandfather clause." Those who had been teaching driver education prior to establishment of certification requirements by a state were exempt. He also found that, as late as 1961, there were 58 different titles reported for the introductory course in teacher preparation in driver education. Over 75 percent of the colleges designated the course as "driver education," "basic driver education," or "driver education and traffic safety." There was also a wide variation in number of hours required for certification, ranging from no requirement in nine states to 12 semester hours or more in six states. Hartman also reported weakness in preparation provided for college driver education professors. Of 225 professors, 46 had had but one non-credit course in the field; 50 had had a one-credit course; and 80 others had had more than one course but less than a minor.

Schwenk (135), in a study completed in 1962, found that only nine states met the basic recommended certification requirements of nine semester hours. In fact, 10 states had no course requirements.

It can readily be seen that while there had been some improvement in certification prior to 1965, the average state was far below the minimum requirements recommended by the third National Conference on Driver Education. In most states, by taking one extra course, a teacher could be certified in driver education. This may account for the fact that, during the school year 1964-65, there were 40,000 teachers certified to teach driver education in the United States, but only 26,000 were teaching the course in 13,000 high schools. One state reported that 5,000 teachers were certified, but only 1,000 taught driver and traffic safety education during that year.

Conference on Teacher Preparation and Certification

In March 1965 representatives of state departments of education, colleges and universities, and safety and support organizations were invited by the NEA National Commission on Safety Education to confer in Washington. An important purpose of this conference (64) was to focus attention on a need to raise the standards for teacher preparation and certification. It was directly concerned with: (a) the curriculum for preparing teachers; (b) articulation of this curriculum with the overall teacher education program; (c) certification requirements for teachers; (d) selection and preparation of college teaching 29

personnel; and (e) selection and preparation of safety supervisors for school systems.

The curriculum for the professional preparation of teachers of driver education covers a large area of a recognized discipline. It embraces elements originating in engineering, enforcement, motor vehicle administration, and the physical, biological, and behavioral sciences—to mention just a few of the sources. The evaluation of student achievement, organization and administration of programs, interrelationships with all aspects of safety education, and important research contributions are other important aspects.

A section of the conference report dealt with college and university responsibilities. It was pointed out that the total program should involve budget, staff, selection of students, status, departmental structure, curriculum of teacher preparation, graduate programs, facilities, and equipment. With only a few "safety centers" that met conditions of this kind, it was wondered whether a few colleges offering complete programs would be better than a large number with inadequate offerings.

It was recommended that colleges preparing teachers provide for intensive preparation in driver and traffic safety education at the undergraduate level. The recommended work was divided as follows:

1. Required courses totaling 12 semester hours—
   Introduction to Safety Education 3 semester hours
   Driver and Traffic Safety Education 9 semester hours
2. Electives in the behavioral sciences— 3-6 semester hours
3. Other electives dealing with enforcement, engineering, legislation, licensing, and state and local administration. Also courses in auto mechanics and audio-visual aids.

The Conference urged colleges and universities to develop graduate programs leading to the master's and doctoral degrees.

Responsibilities of state departments of education include: (a) establishing and upgrading teacher preparation requirements, (b) providing advisory leadership services to teacher preparation institutions, and (c) furnishing advisory services to official accrediting agencies. While wide differences existed in certification requirements among the states, it was felt that the basis for certification should be comparable to that established for other subjects. Supervisors of driver and traffic safety education should meet all general requirements established by the state, as well as meet the specific requirements needed to teach in this field.

Although attendance was limited to 150 delegates, follow-up meetings were proposed in order to add to the value of the conference. Accordingly, six regional workshops were organized, with a total attendance approaching 600. Some state meetings were also held.

IV ORGANIZATION,

. . . Administration, and Supervision

During the first years of the driver education movement, program organization and administration was carried on largely by individual teachers in local school or college communities. Individuals like Lauer, Sears, Neyhart, and many others organized their own programs, with the approval of a school or college administrator. The first "Good Driver Clubs" and classroom courses were for the most part a result of efforts made by such an individual.

Eventually widespread support encouraged state and city school administrators to provide leadership in initiating and administering driver education programs. In many states, policies were outlined, plans for financial support were developed, courses of study were prepared, teacher preparation programs were expanded, car procurement methods were improved, and systems of records were improved. Since they usually included statements on policies, financing, securing cars, and other features of organization, development of state-level guides was one of the primary steps in organizing for program expansion and improvement.

Courses of Study

As early as 1936, states were organizing guides and courses of study for driver education. Although many were prepared by teachers during short meetings and workshops, the guides served a useful purpose by providing some uniformity to standards for high school driver education. By World War II, at least 25 state guides had been prepared.

Several states, including Texas and Florida, arranged for a number of scholarships for teachers and administrators at state institutions of higher education. They worked on the state curriculum guide as a part of requirements in courses for which they received credit. Consultants from various safety organizations also aided in the development of the curriculum.

Legislation

Nihan's (109) research, reported in 1961, showed that 24 states had laws regarding driver education and 15 states had regulations designed to serve a similar purpose.

Legislation has been of great help in promoting driver and traffic safety education. Since 1961, many additional states have passed laws to provide financial support. When local and state foundation funds have not proved adequate to provide a minimum course for all eligible

students, many states have considered and enacted special financial aid legislation.

Types of Programs

Uniformity was not a characteristic of early driver education programs. Among the factors that varied were time allotment, content, methods of teaching, and grade placement. Fortunately, most schools used textbooks and many states had guides or courses of study which gave some degree of uniformity.

According to *Let's Teach Driving* (63), there were two schools of thought regarding types of programs. One held that the courses should include practice driving instruction accompanied or preceded by classroom instruction. The other placed emphasis on the classroom phase without practice driving. In 1938, only 10 percent of the schools offering driver education were providing the two-phase type of course. Since then, there has been a steady increase in the percentage of schools offering the complete program. It reached 68 percent in a recent year—nearly seven times what it was in 1938. Research results and the four National Conferences on Driver Education had much to do with this increase.

In several states, attempts have been made to use parents or other persons to handle the practice driving phase. This plan met with little success. Research and experience has shown that practice driving instruction has been of higher quality when taught by state-certified teachers of driver and traffic safety education.

Time Allotment and Grade Placement

At first, among the states, there was a considerable amount of variance in time allotment for classroom and practice driving instruction. Not until the first national conference, held in 1949,* were there national recommendations urging the minimum time requirements of 30 hours for classroom instruction and 6 hours for actual driving practice, exclusive of observation time. In recent years, the time allotments have exceeded these minimum recommendations in more than 20 percent of the schools. The fourth National Conference (1963) recommended that "the standard high school driver and traffic safety education course extend over a full semester (90 hours)."

The minimum age limit for obtaining a driver's license ranges from 14 to 18 years. Consequently, grade placement of driver education shows wide variance, with some states offering courses in the junior high school and others in the senior high.

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32 * The proceedings of the 1949 conference were published in 1950.

Policies and Practices for Driver and Traffic Safety Education (1964) (68), recommended a minimum licensable age of 18 unless the student has successfully completed the standard course, in which case the age could be 16. It also recommended that practice driving be given in the same year as classroom instruction, preferably in the same semester.

Dual-Control Car Plan

Some changes have taken place in the laboratory phase since 1940. Recommendations of each of the national conferences have emphasized the importance of the complete program of at least 30 hours of classroom instruction and 6 of actual driving experience. Anderson (20) has stressed the importance of practice driving, the methods of teaching skills, and the necessity for careful planning and record keeping.

While the use of ranges and simulators is increasing at a rapid rate, it has been predicted that in-traffic instruction in a dual-control car will continue as an essential part of the practice driving phase of driver education. In addition, for some time to come, in-car instruction under street conditions in a dual-control car may be considered as the only approach practical for application in small high schools.

Car Procurement and Use

Automobile manufacturers and dealers have been generous in the loan of automobiles to schools. From a small beginning during the mid-1930's, the number loaned has increased rapidly until, in 1965, there were over 10,000 cars on loan, 64 percent of all cars in use in driver education. The remainder were purchased or rented. According to *Cars for Driving Instruction* (61) published in 1948, it was recommended that schools receiving free-loan vehicles be responsible for the following: (a) registration and insurance; (b) gasoline, oil, and antifreeze; (c) garaging; (d) lubrication and other maintenance services; (e) repairs; (f) dual controls and other incidental expenses. Agreements with dealers limited the use of the cars to activities related directly to driver education.

Arrangements for the free loan of practice driving vehicles have not undergone major changes since 1948. A number of safety features have been added by manufacturers. These included a seat belt for each occupant, windshield washers, padded instrument panels, recessed-center steering wheel, extra rear-view mirrors, fire extinguishers and flares, a first-aid kit, etc. In 1964, at the request of Chrysler Corporation, the NEA National Commission on Safety Education appointed and began administering two yearly meetings of an educator committee

to advise on the driver education car loan program. This manufacturer has utilized the committee's suggestions in developing its plans for driver education cars.

During the early 1950's, manufacturers made an allowance to dealers of $125 for each car loaned to schools for driver education. This has been increased to $250 and higher in many instances. The American Automobile Association and the Auto Industries Highway Safety Committee have, over the years, been helpful in aiding schools to secure cars.

Adults and Out-of-School Youth

At one time, very little was being done to provide instruction in driver education for adults and out-of-school youth. Action of the third National Conference on Driver Education in 1959, however, included recommendations for adult and out-of-school youth programs. The 1963 Conference of the American Driver and Traffic Safety Education Association came out strongly for this addition to the school program. This was in support of the considerations that appeared in *Adult Education in the Public Schools* (83) by the American Association of School Administrators, the Council of Chief State School Officers, the National Association of Public School Adult Educators, and the National Congress of Parents and Teachers. The American Driver and Traffic Safety Education Association and the National Commission on Safety Education published a joint statement in support of the program for adults and out-of-school youth based on *Adult Education in the Public Schools* (83).

During the 1964-65 school year, schools in 42 states offered courses for adults and out-of-school youth. While there were only about 1,700 schools which offered courses enrolling 49,000 students during the 1964-65 school year, the number had doubled since 1959-60. There exists some danger of low standards in regard to time allotment. The American Driver and Traffic Safety Education Association recommends that the classroom work in driver education for adults be not less than 20 hours, practice driving at least 6 hours, and that instructors be properly certified as recommended by the 1963 National Conference on Driver Education.

In several states, driver educators have been active in organizing driver improvement schools. Some have been developed for treatment of chronic violators of traffic laws and others have been designed, primarily, as "refresher" courses for any driver who wished to be enrolled. Usually consisting of from 6 to 8 hours of classroom instruction, the short courses have been designed to accommodate chronic violators of traffic laws and those who are involved repeatedly in traffic accidents. The National Safety Council and other organizations have been instrumental in organizing programs of this type.

Off-Street Multiple-Car Driving Range Plan

According to William A. Sears, the public schools in the city of Chicago first established an off-street multiple-car driving range in the mid-1930's (137). It was a part of a three-phase program: the first, classroom instruction; the second, the use of simulators; and the third, practice driving on an area adjacent to the school. The area, called a track, was a square 200 feet on each side and had traffic lights at intersections, an incline, and other characteristics of roads that might be found anywhere. After students had completed the first two parts, they were assigned to the track where five cars were available. The average time spent by at least 400 students on the driving track was 12 hours and the average distance traveled was 22.5 miles. It is an interesting fact that, while this installation was visited and was approved by many driver education teachers, the off-street multiple-car driving range plan was very slow in spreading to other areas of the country.

Several colleges constructed and used off-street multiple-car driving ranges—State College of Iowa and, more recently, Michigan State University. All of these included various skill and knowledge testing facilities such as traffic lights, intersections, road signs, and street markings.

The Detroit multiple-car plan was developed under the leadership of Gordon Graham, the first installation being at Pershing High School in 1944 (29). The area, approximately 200′ × 500′, was so devised as to simulate street driving conditions. Thirteen vehicles were used, one of which was a dual-control station wagon for the use by the instructor. The remaining 12 cars represented a variety of makes and were not equipped with dual controls. The original plan did not include follow-up instruction in a dual-control car in street traffic. According to *Policies and Practices for Driver and Traffic Safety Education* (68), "Under all circumstances, it is recommended that the laboratory phase include supervised practice in a dual-control car under real traffic conditions."

At one time it was assumed that such ranges must be equipped with various types of traffic control devices. During the 1960's, it was learned that driver education ranges could serve multiple purposes. It has sometimes been said that it is impractical to construct driver education ranges in larger cities where property is expensive. On the other hand, in recent years, range programs have been adopted by the larger cities in Florida, Michigan, and Virginia. According to the most recent reports of the *Eighteenth Driver Education Achievement Program* (43), Florida had 69 ranges which were used in training over 27,000 students; Michigan, 54; and Virginia, 43. Records show that in 1965 there were 326 ranges in the nation used by over 125,000 students.

However, the range program has been largely confined to a few states. While ranges exist in 19 states, five states have 66 percent of the total number and 31 states have none.

Television

The educational television innovation was applied to driver and traffic safety education during the 1950's. Cincinnati, in 1957, developed a plan for using a series of kinescopes for 30 minutes each, to be followed by 20 minutes of classroom instruction (16). Dade County, Florida (16), introduced and has continued a program of 10 broadcasts of 15 minutes each, three times a week, for a total of 12 telecast hours in addition to 18 hours of classroom instruction. The New York State Education Department also developed a series of telecasts but discontinued the project after one year. The Cincinnati kinescopes were used in South Carolina, with 30 half-hour telecasts. Texas and Michigan also developed state-wide programs.

Little research has been conducted to determine the values of television in the driver education field. Many teachers have felt that the use of television, not preceded and followed by classroom instruction, is a mistake. It is felt that the influence of the teacher is very important, especially in connection with the development of behavioral traits of drivers.

According to the *Eighteenth Driver Education Achievement Program* (43), television was used during 1964-65 in 193 schools located in 22 states.

Driving Simulators

The driver education simulator is a device that provides practice situations which can be used to develop among students those abilities that are considered to be essential to safe and efficient driving. The first simulators were often assembled from parts of old cars. As early as 1936, Lane Technical High School in Chicago was using a 30-unit simulator as a part of the driver instruction program. Students were given classroom instruction followed by practice on the simulator and, finally, practice driving on a small off-street multiple-car driving range. From several viewpoints, this program was successful. The high school in Bloomington, Indiana, and Crozier Technical High School in Dallas, Texas, used similar approaches. While no records have been made available, it is likely that these "homemade" simulators were constructed and used, primarily, to give students practice in steering, shifting gears, and braking. One such device was constructed by the staff of Bell Laboratories for the Center for Safety Education at New York University, and directions for constructing a simulator were sent out to hundreds of high schools.

In 1953, the Aetna Life Affiliated Companies produced the Drivotrainer (2). This was a classroom installation consisting of a number of small "cars" equipped with all automobile controls. In learning to meet traffic situations, students operated the "cars" on streets depicted by motion pictures on a screen at the front of the classroom. The first motion pictures were on black and white film, but color film was introduced during the early 1960's. The first Aetna installation was in a New York City high school and was followed by experimental installations at State College of Iowa, Michigan State University, and Hollywood High School, California.

The Auto Trainer of the American Automobile Association consisted of the usual automobile controls which determined the speed and direction of a miniature car operating on a moving roadway painted on an endless canvas belt. The steering wheel controlled the front wheels of one miniature car and the accelerator and brake controlled the speed of the moving roadway.

The Allstate Insurance Company, in 1962, introduced the Allstate Good Driver Trainer (5) which operated in a manner similar to the Drivotrainer. It featured use of wide-screen film and a system for immedate feedback of student errors.

Fox, in *Driver Education and Driving Simulators* (37), summarized many of the studies of the use of simulation. The first part of his report was devoted to the transfer of training and to Armed Forces research in simulation for training in gunnery and in aviation. This was followed by a report of several studies in which the Aetna Drivotrainer was used. In each study, one group of students was given 12 hours of instruction on the simulator and 3 hours of practice driving. The other group was given 6 hours of practice driving plus observation time. In 1955, a research study was conducted in a Los Angeles high school and was submitted as a doctoral dissertation by Bernoff (26) in 1958; a second, in 1956, at Iowa State Teachers College (132). In general, the two groups compared in each of these studies showed *no significant differences* in improvements in knowledge, skills, and attitudes.

Bishop (27) conducted a similar study in 1963 using the Allstate Good Driver Trainer. This was followed by the Hayes study (40) which used the Allstate simulator. This research differed from the preceding investigations in that 9 hours were given on the simulator instead of 12. The investigators found no significant differences between the performance of the two groups in either study. The experimental design was changed in two researches conducted at Michigan State University. Nolan (113) compared the teaching effectiveness, as measured by knowledge, skills, and attitudes, of the multiple-car range as compared with the Drivotrainer. Gustafson (38) compared the effectiveness of a program using the Good Driver Trainer (5) plus the range with a program utilizing the range alone. While each investigator drew

a number of conclusions, in general the differences in the performance of the groups was not significant. In 1966, however, a study by Seals (136) at Florida State University, reported that driving knowledge and road test scores of students who had completed a four-phase course which included simulation were significantly better than those from courses in which the laboratory phase was composed largely of driving range experience.

Studies of the American Automobile Association's Auto Trainer were reported by Fox (37) as carried on in Springfield (Pennsylvania) and in Washington, D.C. He reported that these studies were a good beginning but should be conducted with a larger number of subjects and with better controls.

The term "no significant differences" has been a conclusion of almost every simulation study in driver education. The American Automobile Association, in *Teaching Driver and Traffic Safety Education* (16), suggested that the instruments (tests and scales) used in these studies (called the evaluation criteria) may have been too weak to detect and properly identify differences. Seals (136) concluded that available measurement instruments should be improved so that they could show the superiority or inferiority of student groups in respect to specific component-areas of the driving task.

It has been found that simulators are valuable in enhancing the scope of instruction and in increasing the number of students per teacher—thus lowering the per-pupil cost. Mobile simulator units are being used in a number of cities. Over 500 simulator installations in the United States, during the 1964-65 school year, were used in teaching over 188,000 students.

Supervision

Up to 1940, very little had appeared in the literature regarding the supervision of either safety education or driver education. According to the yearbook, *Safety Education* (8), it was assumed that principals and other school administrators would devote some time to supervision in these areas. A few cities had supervisors of safety education but none was devoting full time to driver education. Danford (33) reported in 1943 that 27 state departments of education had designated a person as responsible for safety education.

In the period following World War II, a supervisors section organized in connection with the National Safety Council undertook to promote the exchange of information among supervisors and made specific recommendations regarding the responsibilities of supervisors.

According to Key (44), by the school year 1957-58, only 14 of the 48 states reported that personnel was assigned responsibility as supervisors of either driver education or safety education. Others were
38 supervisors or directors of other subjects or areas. Moreover, the train-

ing requirements for supervisors were low, with 23 states indicating no requirements as far as driver education was concerned; 15 states required only a single, college-level course in driver or safety education. At the same time, in the 48 states, 37 of the individuals responsible for driver education and safety education had had no special preparation in the field.

A similar situation existed among supervisors of local school systems. The requirements for supervisors fell far short of those recommended by the 1956 National Conference on Teacher Education, Certification, and Program Standards and the 1958 National Conference on Driver Education (67). The first recommended that supervisors have extensive professional preparation, verified through an advanced degree (master's degree or higher). Very few of the state supervisors could have met these requirements.

In the meantime, as more and more states enacted financial support legislation, there was a greater need for state supervision. To administer a reimbursement program, the paper work alone requires a great deal of time. According to the *Eighteenth Driver Education Achievement Program* (1964-65) (43), while all but one of the states had an individual designated as responsible for the supervision of driver education, in half of the states he did not carry driver education in his title.

It was recommended in *Policies and Practices for Driver and Traffic Safety Education*, 1964 (68), that all state departments of education designate qualified personnel to guide departmental activities in advancing driver education as an integral part of the total school program. The publication asked that such departments meet recognized needs and exert leadership in matters of administration, consultant services, teacher preparation and certification, instructional materials, research, and evaluation. A supervisor of safety education (including driver education) was also recommended for cities and large school jurisdictions.

Intern Program

In 1964, the NEA National Commission on Safety Education and the Automotive Safety Foundation jointly undertook a pilot "intern program" for driver and safety education supervisors. The first six interns completed their internship experience by June 1966 and moved into leadership positions in state and local school systems (and in one case a safety organization). During the period of internship and as a phase of professional preparation, each intern was employed in the field on a salaried basis and had opportunity to advance in competence through supervised work on assigned tasks.

V MEASURING STUDENT PROGRESS

As driver education was introduced into the schools, teachers began to use various types of tests to measure student progress. Sears (137) reported two types to measure knowledge and skills in 1936. Tests were also prepared by Lauer (48), Neyhart (108), Abercrombie (1), McGlade (54), Noffsinger (111), and others. Most of the driver education textbooks were accompanied by both knowledge and skill tests, and tests were also included in many state and city courses of study. The American Automobile Association, the Association of Casualty and Surety Companies, the National Safety Council, and other groups published various types of knowledge and skill tests. Moreover, many teachers developed their own measurement tools and, for limited purposes, utilized state driver license examinations. Few of these objective tests were standardized.

Measurement of the area of driver attitudes has always been difficult. Siebrecht (138) spent two years in developing the *Driver Attitude Scale*. This for many years, and Conover's *Driver Attitude Inventory* (31), have been widely used by schools and colleges as research instruments and as the means of gauging changes in group attitudes. It is of interest to note that while the Siebrecht scale was developed 25 years ago, and there has since been a considerable amount of research on attitudes, very little has been done in preparing new scales.

Evaluative Criteria

Through the National Study of Secondary School Evaluation (107), a series of evaluative criteria has been developed which covers the philosophy, objectives, school plant, school staff and administration, student activity programs, and nineteen curriculum areas including driver education. Teachers, administrators, and visiting committees have used the instrument to evaluate driver education as provided by individual schools. The driver education section of the evaluative criteria is a series of checklists covering such areas as (a) organization, (b) nature of offerings, (c) physical facilities, (d) direction of learning, (e) outcomes, (f) special characteristics, and (g) general evaluation of instruction. While many of the items are subjective, they cover in detail both classroom instruction and practice driving. Instruments of this type have been found valuable in self-evaluation efforts.

Psychophysical Testing

Research on psychophysical traits of human beings began with the 41

early investigations of Munsterberg, Vernon, Viteles, and others. In more recent years, studies have been conducted by Lauer at the research laboratory at Iowa State University, by DeSilva at Harvard University, and by members of the staff of the American Automobile Association. In addition, industrial organizations have conducted a number of developmental studies using vision testing apparatus such as the "orthorator," the "sight-screener," and the "telebinocular."* Early devices that DeSilva (35), Lauer (47), Allgaier (4), and others constructed were used in measuring visual acuity, peripheral vision, night acuity, color perception, depth perception, and reaction time. Some of the equipment was heavy, expensive, and cumbersome—the DeSilva apparatus required a light truck to transport the complete set.

Light-weight, inexpensive apparatus was later constructed and widely used in schools and colleges. Brody and Stack (29) have indicated that the value of psychophysical tests in identifying accident repeaters and chronic violators is questionable. Nevertheless, the authors felt that the tests have an important educational function in that they can locate serious weaknesses and stimulate student interest.

Comparative Studies

From the beginning, teachers and administrators were anxious to show that driver education was producing results—that drivers who successfully completed a course had better accident and violation records. Well over 30 studies have been conducted comparing the records of drivers who have completed driver education courses with those who have not. In some early investigations, matching of groups was inadequate and statistical measures were not taken of the significance of differences observed in the raw data. If state agencies had called in university research specialists to help design the studies, perhaps the designs would have been better. This was done in several instances with more valid and reliable results.

There have been several summaries of these studies. One study, published by the American Automobile Association (14), presented evidence that the record of trained drivers was twice as good as that of the untrained. Lane-Reticker (45) reviewed many of the studies, and Brody and Stack (29) not only summarized 16 such investigations but also proposed methods by which research of this kind could be improved. While control of complex variables in such research has proved difficult, nearly all of the studies showed that trained drivers have a better accident and violation record than the untrained.

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* These devices are used by industries, by some schools, and by several motor vehicle departments for testing vision. The schools, however, generally use less expensive apparatus.

The National Commission on Safety Education followed with a publication, *A Critical Analysis of Driver Education Research* (84), which summarized 26 studies carried on in states and cities. It was observed that, in the state studies, the percentage of superiority of the trained groups over the untrained varied from over 75 percent in several cases to a slightly negative result in a few others.

The following is a brief summary of the Commission publication which covered 26 studies: (a) trained drivers have a better record than untrained, (b) the amount of superiority shown by the trained groups varied greatly in the studies, (c) students who had the complete program of driver education had better records than those who had only classroom instruction, and (d) the salutary effect of driver education is more evident in the early stages of driving. While many of these researches were not well-designed and lacked both validity and reliability, the National Commission on Safety Education (68) urged that teachers acquire a basic understanding of the processes of evaluation. Both Brody* and Mahony** agree, and Mahony adds a postscript that "the existence of such extensive data supporting driver education indicates that research should turn elsewhere." Many persons have questioned the wisdom of conducting such comparative studies. It has been pointed out that young people who are taught mathematics are able to solve mathematical problems better than those who have had no instruction and that athletes who have had good coaching make better players. Thus, the reasoning process has been used to conclude that students who have been taught properly should make better drivers.

Five basic objectives of driver education were discussed earlier. Since much of the research has been related to one objective, several writers have suggested that more research attention should be given through studies related to the other four objectives. In relation to comparative studies based only on driving records of persons with and without driver education, *Policies and Practices for Driver and Traffic Safety Education* (68) states that "the range and complexity of relevant factors and the inadequacy of investigative and evaluative instruments make it virtually impossible to design research that will establish definitive causal relationships."

Annual Status Report

In 1947, the Association of Casualty and Surety Companies established the Annual National High School Driver Education Award Program (43). Its purpose was to provide an annual report on the status of driver education in each state and the District of Columbia. Each year, awards in the form of plaques were given to states that had the best records or

* *Highway Safety and Driver Education*, pp. 373-4.
** *Teaching Driver and Traffic Safety Education*, p. 291.

showed the greatest improvement. At first criteria for determining award-winning states were based on factors of *quantity*—the percentage of schools offering courses and the percentage of "eligible" students enrolled. Later, some emphasis was placed on attempts to evaluate the *quality* of statewide programs.

Beginning in 1959, this annual survey was administered by the Insurance Institute for Highway Safety and the name was changed to the National Driver Education Achievement Program. Recognition is given to states on the basis of: (a) *progress*—states showing an increase in student enrollment in qualifying courses of 10 or more percentage points over the previous year; (b) *achievement*—states enrolling at least 60 percent of eligible students in qualifying courses; and (c) *excellence*—states enrolling at least 90 percent of eligible students for three consecutive years.

This annual survey has also collected information regarding state associations of driver education teachers; use of innovations such as simulators, ranges, and television; activities of responsible state departments; automobile use; teacher certification requirements; and adult and non-public high school programs.

Other Inventories

The National Safety Council has, for a number of years, sponsored an annual inventory of various traffic safety activities carried on in cities and states. The inventory has included a School Traffic Safety Education Section. This inventory has been of value to states and cities in indicating strengths and weaknesses of programs. The American Automobile Association's reports of the Annual Pedestrian Protection Program, also, have contained valuable information related to driver and traffic safety education.

VI RESEARCH

Hubbard's (42) statement of the nature of research has been widely quoted: "For most of us in education, the term research may be applied to a variety of processes ranging from the preparation of a bibliography to the highly complex psychological studies. . . . The important considerations are the investigator's spirit as he approaches his problem, the thoroughness of his investigation, the care with which he assembles and catalogues his facts, and the honesty of his interpretations." Based on these criteria, some research bulletins as well as many publications which have arisen from special projects sponsored by the National Education Association have been considered as research. Lacking space to mention all research in the area of driver education, reference has been made to selected projects which represent the broad field of investigation.

Colleges and Universities

In the 1930's, Lauer (46) at Iowa State University and DeSilva (35) at Harvard University conducted a series of studies dealing chiefly with the psychophysical characteristics of drivers. While the driver education movement got under way soon after this period, little research was conducted in universities except in related fields. According to *Research in Safety Education* (30), of the 25 university studies on highway safety reported by 1956, only four dealt with driver education. Beginning in 1953, several studies investigating the use of simulators were reported. Some of these have been reviewed in *Driver Education and Driving Simulators* (37) and others in *Research in Safety Education* (69).* Stratemeyer's *Accident Research for Better Safety Teaching* (143) listed 63 studies some of which were carried on at universities and were related to driver education.

Organizations and Industries

Non-university organizations have conducted hundreds of studies in fields related to driver education. McFarland (53) lists well over 100. The *Research Review* (104) of the National Safety Council includes many abstracts. The proceedings of the Highway Research Board; the School and College Conference of the National Safety Council; the

* This multigraphed publication of the National Commission on Safety Education was produced only for use by participants in a workshop held in 1961. The 1956 publication by the same name mentioned earlier in the paragraph is out of print.

American Driver and Traffic Safety Education Association; conferences of the National Commission on Safety Education, and several other organizations have included abstracts of research. While many have dealt with driver education, the majority have not focused on the subject as such. Unfortunately, many of those that have concentrated on driver education have investigated the effect of the course on driving performance. Few studies have given attention to the curriculum—what should be taught, and how it could be taught most effectively. In 1956, *Research in Safety Education* (30) listed 36 suggested studies but, 10 years later, few were completed. Each National Conference on Driver Education urged teachers to participate in research projects. In the *Research* section of the *Action Program for Highway Safety* (119), the President's Committee for Traffic Safety has pointed to specific needs.

Ojemann (115) prepared a manual, *Tests and Evaluation Methods Used in Driver and Safety Education*, which was published by the National Commission on Safety Education. Devoted chiefly to the problems and methods of measuring *safe behavior*, it reviewed selected research studies and raised questions as to the validity and reliability of various tests, scales, and checklists. In his summary, Ojemann listed the following: (a) there are difficulties involved in using accident rates in evaluating driving, (b) the use of simulators has not advanced far enough to indicate that they could be used to measure behavior, (c) checklists could be used if carefully constructed, with each item specifying some aspect of behavior, (d) while the correlation of knowledge with behavior is low, knowledge tests should be retained for measuring progress of the learner, (e) the results of psychophysical testing should be used only to inform the learner of his strengths and weaknesses, (f) while the correlation of attitude tests with behavior is not significant, they should be used, for the teacher may want to know how pupils score, and (g) there is increasing evidence that personal adjustment scales or personality inventories are related to safe behavior. Ojemann suggested that, since it is a complex field, individuals interested in undertaking studies in safe behavior should first consult with competent behavioral scientists. He indicated, however, that teachers should continue to use tests of knowledge, skills, and attitudes for assessing student progress.

VII SUPPORT ORGANIZATIONS

The development of driver and traffic safety education has been greatly aided by public support. In 1956, the National Committee for Traffic Safety, a coordinating agency for support groups, reported that 85 national organizations had endorsed the *Action Program* (117) which included driver education. The rapid growth of the movement was due in part to the influence of these public support organizations and their local units.

Direct Action

Of the several types of public support, "direct action" by a few organizations did much to promote driver education during the early days. Education consultants employed by the American Automobile Association, the Association of Casualty and Surety Companies, and the National Safety Council, aided schools and colleges in the developing of courses of study, gave instruction to driver education teachers, and provided schools with instructional materials. Another form of direct action was the work of highway patrol and motor vehicle department officers in some states. Later, the amount of direct action support by non-school agencies was reduced.

Financial Support

Many examples of financial support for high school driver education could be cited. However, since no record has been kept of the number of automobiles, books, visual aids, and other equipment that have been donated by manufacturers, automobile clubs, insurance underwriters, safety councils, and other agencies and individuals, only the outstanding contributions have been mentioned in this publication.

Automobile Casualty Insurance

In 1925, the National Bureau of Casualty and Surety Underwriters provided a basic grant to the National Safety Council to finance the work of its Education Division. This financial support was continued until 1938, when the grant was transferred to the Center for Safety Education at New York University. In 1936, the safety work of the National Bureau had been transferred to the Association of Casualty and Surety Companies. This organization continued the basic grant to New York University for 21 years. Since 1959, basic funding of the NYU Center for Safety Education has come from the Insurance Institute for Highway Safety.

In addition, mutual and independent insurance companies aided in the support of driver education. The college grants from the Allstate (Foundation) Insurance Company, for example, were initiated in 1953 and have continued for the past 13 years. During this 13-year period, over 10,000 scholarships have been awarded to high school teachers and college professors.

Other individual insurance companies also aided in the work of schools by preparing booklets and films and by supporting the work of State Driver and Traffic Safety Education Associations.

The casualty insurance industry has provided another form of indirect support by allowing a reduction in the premiums for students who have completed an approved course. Good up to age 25, the total saving to the individual driver amounted to several times the per-pupil cost of the course.

In 1959, most of the traffic safety activities of over 550 stock, mutual, and independent casualty insurance companies were transferred to the Insurance Institute for Highway Safety. This Institute has provided financial grants to national and state organizations in the areas of enforcement, engineering, and other facets of the *Action Program* (117).

Automobile Manufacturers

The automobile industry has been one of the chief supporters of driver education. The Automotive Safety Foundation was organized in 1937, deriving its funds primarily from automobile manufacturers and parts and accessories companies. The funds have lent support to many agencies associated with the *Action Program* (117). While most of the work has been carried on through grants to other organizations, the Foundation has developed publications and has conducted studies of state motor vehicle laws and has aided several states with long-range highway planning surveys.

Among the organizations to which it has provided financial support for driver education programs are the following: The National Commission on Safety Education; the National Safety Council; the President's Conferences on Highway Safety; the President's Committee for Traffic Safety; the National Committee for Traffic Training; and numerous other private and public support organizations. The staff of the Foundation has served on many national traffic safety committees. The Foundation provided the basic funds for the National Conferences on Driver Education, the Intern Program, and several other conferences organized by the National Commission on Safety Education.

In 1965 the Chrysler Corporation Fund provided a grant to the National Commission on Safety Education with which the Commission organized and conducted advanced summer study programs in driver
48 and safety education on six university campuses. Scholarships were

provided to enable safety education supervisors, college professors, and other educators to attend these programs. The grant was repeated in 1966 and six advanced study programs were again offered. An additional grant in 1966 enabled the Commission to organize and provide scholarships for driver education teachers to enroll in summer offerings on the campuses of 20 institutions of higher education.

Federal Government

Public Law 89-10 provided about $1 billion to be used during 1965-66 for improving education in the United States.

Title I of this law was widely permissive. Funds were made available for driver education equipment, instructional materials, laboratory equipment, and for supervisory staff.

Title II provided for library equipment, books and magazines.

Title III funds were made available for stimulating local schools to arrange special programs.

Title IV provided funds to extend the cooperative research program of the U.S. Office of Education.

Title V funds were made available for strengthening state departments of education, such as the employing of a supervisor of driver and safety education.

Automobile Clubs

For many years, automobile clubs have had a staff of educational consultants available for service to the various states. Books, tests, and other materials have been supplied to teachers and students in driver and traffic safety education courses.

The American Automobile Association has financed the production of a number of motion pictures, demonstration devices, psychophysical testing equipment, and such publications as: *Driver and Pedestrian Responsibilities* (11) and *The Driver* (9), issued in 1936, *Organization, Administration and Instruction in Driver Education and Training* (13), published in 1941, *Driver Education and Training Manual for High School Teachers* (10), 1947, and *Education for Traffic Safety* (12), prepared by Norman Key, and published in 1949. The AAA Foundation for Traffic Safety has given financial support to numerous projects including the Safety Research and Education Project at Teachers College, Columbia University.

Safety Councils

Through the years, national, state, and local safety councils have made important contributions to the driver and traffic safety education movement. Local and state councils have helped support school programs by supplying films, booklets, and in some cases automobiles. The National

Safety Council has supported a driver education section, has provided funds for the President's Conferences on Highway Safety, and for the National Committee for Traffic Safety. The Council has supplied materials for use by public information media, produced many booklets on traffic safety, and given wide distribution to articles on driver and traffic safety education.

General Support

The President's Conferences on Highway Safety, the National Committee for Traffic Safety, and the President's Committee for Traffic Safety would be included among a listing of agencies that have supported driver education. These agencies have served as coordinating organizations. Several federal agencies, such as the Bureau of Public Roads and divisions of the Department of Health, Education, and Welfare have also provided support. In addition, state and local governmental agencies, such as the departments of motor vehicles, state and city police, and highway patrols have aided the movement.

The support given by other organizations has varied from one community and one state to another. In general, parent-teacher associations have been strong supporters of driver education for many years. The General Federation of Womens' Clubs has also been of aid. Local clubs of the Business and Professional Women, service clubs, and civic clubs, especially the Junior Chambers of Commerce, have given support when needed. The same has been true of organizations such as the YMCA, YMHA, and farm groups. Other agencies that have helped include the following: American Medical Association; American Optometric Association; automobile dealers; Junior Chambers of Commerce; war veterans organizations; fraternal clubs; business and industrial organizations; and churches.

There are several other national organizations that have been of help. Included are the American Trucking Associations, Inc.; the Auto Industries Highway Safety Committee; the National Highway Users Conference; the Automobile Manufacturers Association; the American Association of Motor Vehicle Administrators; the American Bar Association; the International Association of Chiefs of Police; and other agencies. Most of these organizations also have state offices.

State Financial Support

One of the most important developments in the last decade has been the provision of special state financial support for driver education. Largely as a result of this support, the eligible students enrolled in the standard "30 and 6" program increased from 21 percent in 1955-56 to 47 percent in 1964-65 (43). Some method was needed to provide aid
50 to school districts. A special appropriation was made in Delaware in

1947. Support legislation was enacted in Pennsylvania in 1952, and in California in 1956. According to *State Financial Support for Driver and Traffic Safety Education* (76), by 1966, 34 states were providing some form of special state support.

Some of the effects of financial support legislation have been striking. Borgerson (28) reported that soon after Michigan support legislation was passed, 100 percent of the eligible students were given instruction. Williamson (150) found that student enrollment jumped 250 percent during the first year after the law went into effect in Florida. Of course, in each case, the increase was influenced by a "prerequisite to licensing" feature of the law.

There are four prevailing concepts about providing state financial support (75):

All of the People Should Pay.—This belief is reflected in those states which are meeting the costs through appropriations from the general fund. These states are Connecticut, Delaware, Iowa, Louisiana, Maine, Nevada, New Mexico, South Carolina, Rhode Island, and Vermont.

Vehicle Operators and/or Owners Should Pay.—Vehicle operators and/or owners are taxed for this purpose in Florida, Idaho, Illinois, Kansas, Michigan, Montana, Nebraska, New Hampshire, North Carolina, Oregon, Pennsylvania, Utah, Virginia, and Wisconsin.

The Learner Should Pay.—Fees derived from the "learners permit" foot the bill in D.C., Idaho, Maryland, Nebraska, Pennsylvania, and Wisconsin.

The Transgressor Should Pay.—The programs in Alabama, California, Mississippi, Montana, Tennessee, and Washington are supported by a percentage of fines for traffic law infractions.

VIII LOOKING AHEAD

What is the future outlook for driver education? In an ever-changing world, many things can occur to upset predictions. Certain trends in the last decade, however, provide guidelines. For example, the number of schools teaching driver education as well as the number of students given instruction has been increasing steadily. Since it is likely that more states will enact financial support legislation, these upward trends will continue. Moreover, a higher percentage of participating schools will provide full-semester courses.

Driver education will be available to secondary school students on a universal basis and it is probable that more states will set the minimum age for securing a driver's license at 18 unless a student has completed an approved course, in which case he may apply at an earlier age.

Each of the four National Conferences on Driver Education has raised recommended standards and, therefore, has encouraged schools to improve the quality of instruction. Although improvement in teacher preparation has been slow, the trend will continue. The majority of states will soon require teachers to complete a pre-service program of 12 semester hours in safety education and driver education besides elective courses in behavioral sciences.

As a general rule, college teachers have not received sufficient preparation in the specialty field. If colleges offer a minor in safety and driver education, the teacher education professors must be better prepared. As certification requirements for high school teachers are increased, it is possible that few colleges will have a "complete" safety education curriculum due to shortage of qualified professors.

Indications are that there will be a steady growth in number of courses for adults and out-of-school youth. Moreover, it is likely that more states will be aiding in the programs of non-public secondary schools, either by providing instruction in the public schools on a release-time basis or by "loaning" instructors to private secondary schools.

The recommendations of the *Policies and Guidelines for Teacher Preparation and Certification in Driver and Traffic Safety Education* (65) give additional strength to these predictions. The teacher should know far more about the broad field of traffic safety. He should, for example, be well-informed on traffic engineering, law enforcement, motor vehicle administration, and traffic regulations. He will also need a better understanding of personal behavior and attitude development.

There will be a steady increase in use of multiple-car ranges and simulators, especially in the larger schools. And, although use of television in driver education has shown but little progress, further

growth and development of this approach is a likelihood.

Driver education is year-by-year becoming more sophisticated. Teachers will be better prepared and instruction will be greatly improved. Since it is a life-centered program of learning, driver education is in reality a life-giving service. The future of driver education looks secure.

As this publication went to press, Public Law 89-564 had just been signed by President Johnson. Entitled the Highway Safety Act of 1966, it required that each state have a broad highway safety program that met Federal standards and provided $322 million to assist in this regard. States not having approved programs would not only lose the opportunity to receive special funds provided by the act, but would be subject to a 10-percent cut in Federal highway construction subsidies. Of special interest to educators, one section of the act says that the "Secretary shall not approve any State highway safety program . . . which does not—

> . . . provide for comprehensive driver training programs, including (1) the initiation of a State program for driver education in the school systems or for a significant expansion and improvement of such a program already in existence, to be administered by appropriate school officials under the supervision of the Governor . . ."

Thus driver education as a school responsibility was recognized through Federal legislation. And, as a result, millions of dollars were made available to help state and local governments expand and improve this important area of the secondary school curriculum.

APPENDIX

High School Textbooks*

Allen, Thomas A. *Safe and Sane Use of Highways.* Milwaukee: E. M. Hale Company.

American Automobile Association. *Sportmanlike Driving.* New York: McGraw-Hill Book Company.

Center for Safety Education. *Man and the Motor Car.* (Latest edition will be called, *Driver and Traffic Safety Education.)* Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Flaherty, John J. *Youth at the Wheel.* Philadelphia: J. B. Lippincott Company.

Glenn, Harold T. *Youth at the Wheel.* Peoria, Illinois: Charles A. Bennett Company, Inc.

Halsey, Maxwell. *Let's Drive Right.* New York: Scott Foresman and Company.

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Founding Dates of State Driver and/or Safety Education Associatons

State Association	*Date Founded*
1. Arizona Driver Education Association	November 5, 1954
2. Arkansas Driver Education Association	1962
3. California Driver Education Association	September 1953
4. Colorado Driver Education Association	March 1955
5. Connecticut Driver Education Association	May 10, 1956
6. Delaware Driver Education Association	Fall 1960
7. Safety Education Association of the District of Columbia, Metropolitan Area	March 12, 1957
8. Florida Driver and Safety Education Association	January 1957
9. Georgia Driver and Safety Education Association	April 1965
10. Idaho Driver Education Association	October 1962
11. Illinois High School and College Driver Education Association, Inc.	1952
12. Indiana Driver Education Association	October 25, 1951
13. Safety Education Section, Iowa State Education Association	Spring 1950
14. Driver Education Teachers Association of Kansas	October 30, 1952
15. Kentucky Driver and Safety Education Association	April 19, 1963
16. Louisiana Driver Education Association	November 21, 1955
17. Maine Association of Driver Education Teachers	October 6, 1955
18. Driver Education Teachers' Association of Maryland	1949
19. Massachusetts Driver Education Association	Fall 1951

*This list includes the better known books. Some have been published in several editions. In several cases, names of major contributors do not appear.

20. Michigan Driver and Safety Education Association December 10, 1955
21. Minnesota Driver and Safety Education Association December 1958
22. Mississippi Driver and Safety Education Association March 1957
23. Missouri Driver and Safety Education Association March 1954
24. Nebraska Driver and Safety Education Association 1960
25. New Hampshire Driver Education Association 1952
26. New Jersey Driver and Safety Education Association May 16, 1952
27. Driver Education Section, New Mexico Education Association October 1950
28. Driver and Safety Educators Association of New York State May 10, 1956
29. North Carolina Driver Training Teachers Association June 9, 1951
30. North Dakota Driver Education Section, North Dakota Education Association October 1953
31. Ohio Driver Education Association April 17, 1953
32. Safety Section, Oklahoma Education Association February 1947
33. Oregon Driver Education Association 1952
34. The Pennsylvania Association for Safety Education April 1949
35. Rhode Island Association of Certified Teachers of Driver Education July 1, 1961
36. South Carolina Driver and Safety Education Association October 1948
37. Association of Instructors in Driver Education for South Dakota April 23, 1954
38. Safety Education Association of Texas June 1953
Texas Association—Reorganized 1966
39. Utah Driver and Safety Education Association October 1956
40. Driver Education and Safety Association of Vermont December 3, 1949
41. Virginia Driver and Safety Education Association 1964
42. Washington Driver and Safety Education Association May 31, 1955
43. West Virginia Driver and Safety Education Association 1945
44. Wisconsin Driver Education Association April 22, 1954

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